

WEST Search History

DATE: Tuesday, July 12, 2005

Hide?	Set Name	Query	Hit Count
		<i>DB=USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=OR</i>	
<input type="checkbox"/>	L3	epoxygenase and plant	27
<input type="checkbox"/>	L2	epoxy adj 9 adj octadecenoic adj acid	4
<input type="checkbox"/>	L1	12 adj 13 adj epoxy adj 9 adj octadecenoic adj acid	0

END OF SEARCH HISTORY

? b 5,10

12jul05 12:09:46 User208737 Session D556.1
\$0.38 0.109 DialUnits File1
\$0.38 Estimated cost File1
\$0.22 TELNET
\$0.60 Estimated cost this search
\$0.60 Estimated total session cost 0.109 DialUnits

SYSTEM:OS - DIALOG OneSearch
File 5: Biosis Previews(R) 1969-2005/Jul W1
(c) 2005 BIOSIS
File 10: AGRICOLA 70-2005/Jul
(c) format only 2005 The Dialog Corporation

Set	Items	Description
---	-----	-----
? s	epoxy and octadecenoic and acid	
	9483	EPOXY
	0	OCTADECENOIC
	1362472	ACID
S1	0	EPOXY AND OCTADECENOIC AND ACID
? s	epoxy and octadecenoic	
	9483	EPOXY
	944	OCTADECENOIC
S2	109	EPOXY AND OCTADECENOIC
? s	s2 and plant	
	109	S2
	1683619	PLANT
S3	22	S2 AND PLANT
? t	3/6/1-22	

3/6/1 (Item 1 from file: 5)
0013026815 BIOSIS NO.: 200100198654
Inhibition of polyunsaturated fatty acid accumulation in plants expressing a fatty acid epoxigenase
2000

3/6/2 (Item 2 from file: 5)
0012578961 BIOSIS NO.: 200000297274
New cyclopentenone fatty acids formed from linoleic and linolenic acids in potato
2000

3/6/3 (Item 3 from file: 5)
0011482706 BIOSIS NO.: 199800276953
Identification of non-heme diiron proteins that catalyze triple bond and epoxy group formation
1998

3/6/4 (Item 4 from file: 5)
0010314212 BIOSIS NO.: 199698782045
Peroxygenase-catalyzed fatty acid epoxidation in cereal seeds: Sequential oxidation of linoleic acid into 9(S),12(S),13(S)-trihydroxy-10(E)-

octadecenoic acid
1996

3/6/5 (Item 5 from file: 5)
0009962286 BIOSIS NO.: 199598430119
Fatty acid selectivity of a lipase purified from Vernonia galamensis seed
1995

3/6/6 (Item 6 from file: 5)
0008857017 BIOSIS NO.: 199396021433
High-performance liquid chromatography of the triacylglycerols of Vernonia
galamensis and Crepis alpina seed oils
1993

3/6/7 (Item 7 from file: 5)
0008787908 BIOSIS NO.: 199395090174
Enzymatic synthesis and spectroscopic characterization of
1,3-divernoloylglycerol from Vernonia galamensis seed oil
1993

3/6/8 (Item 8 from file: 5)
0007769977 BIOSIS NO.: 199192015748
PREPARATION OF DEUTERIUM-LABELLED METHYL LINOLEATE AND ITS GEOMETRIC
ISOMERS FROM NATURAL SEED OILS
1991

3/6/9 (Item 9 from file: 5)
0007665968 BIOSIS NO.: 199191048859
VERNONIA-GALAMENSIS A RICH SOURCE OF EPOXY ACID
1990

3/6/10 (Item 10 from file: 5)
0007663295 BIOSIS NO.: 199191046186
MINOR COMPONENTS OF LESQUERELLA-FENDLERI SEED OIL
1990

3/6/11 (Item 11 from file: 5)
0007307083 BIOSIS NO.: 199090091562
PILOT PLANT EXTRACTION OF OIL FROM VERNONIA-GALAMENSIS SEED
1990

3/6/12 (Item 12 from file: 5)
0007169146 BIOSIS NO.: 199089087037
ALLENE OXIDE CYCLASE A NEW ENZYME IN PLANT LIPID METABOLISM
1990

3/6/13 (Item 13 from file: 5)
0006191624 BIOSIS NO.: 198886031545
DEVELOPMENT OF PLANT CUTICLES FINE STRUCTURE AND CUTIN COMPOSITION OF

CLIVIA-MINIATRA REG. LEAVES
1988

3/6/14 (Item 1 from file: 10)
4190425 20608874 Holding Library: AGL
Purification and characterization of allene oxide cyclase from dry corn seeds
1997
URL: <http://www.plantphysiol.org/>

3/6/15 (Item 2 from file: 10)
4060008 23325154 Holding Library: AGL
A germination-specific epoxide hydrolase from Euphorbia lagascae
2003

3/6/16 (Item 3 from file: 10)
3923924 23216261 Holding Library: AGL
Transgenic expression of a delta12-epoxygenase gene in Arabidopsis seeds inhibits accumulation of linoleic acid
2001

3/6/17 (Item 4 from file: 10)
3572480 20562437 Holding Library: AGL
Fatty acid selectivity of a lipase purified from Vernonia galamensis seed
1995

3/6/18 (Item 5 from file: 10)
3558937 20551335 Holding Library: AGL
Specificity of Carica papaya latex as biocatalyst in the esterification of fatty acids with 1-butanol
1996 Jul

3/6/19 (Item 6 from file: 10)
3541587 20537520 Holding Library: AGL
Peroxygenase-catalyzed fatty acid epoxidation in cereal seeds. Sequential oxidation of linoleic acid into 9(S),12(S),13(S)-trihydroxy-10(E)-octadecenoic acid
1996 Mar

3/6/20 (Item 7 from file: 10)
3366390 20392011 Holding Library: AGL
Regio- and stereoselectivity of cytochrome P-450 and peroxygenase-dependent formation of cis-12,13- epoxy -9(Z)- octadecenoic acid (vernolic acid) in Euphorbia lagascae
1993 Dec15

3/6/21 (Item 8 from file: 10)
3269813 93018157 Holding Library: AGL
On the specificity of a fatty acid epoxygenase in broad bean (Vicia faba

L.)

1992 Jul

3/6/22 (Item 9 from file: 10)

3060981 91010622 Holding Library: AGL

Hydroperoxide-dependent epoxidation of unsaturated fatty acids in the broad bean (*Vicia faba* L.)

1990 Dec

? t 3/5/17-22

3/5/17 (Item 4 from file: 10)

DIALOG(R)File 10:AGRICOLA

(c) format only 2005 The Dialog Corporation. All rts. reserv.

3572480 20562437 Holding Library: AGL

Fatty acid selectivity of a lipase purified from *Vernonia galamensis* seed

Ncube, I. Gitlesen, T.; Adlercreutz, P.; Read, J.S.; Mattiasson, B.
Lund University, Lund, Sweden.

Amsterdam : Elsevier Science B.V.

Biochimica et biophysica acta = International journal of biochemistry and biophysics. July 13, 1995. v. 1257 (2) p. 149-156.

ISSN: 0006-3002 CODEN: BBACAQ

DNAL CALL NO: 381 B522

Language: English

Includes references

Place of Publication: Netherlands

Subfile: IND; OTHER FOREIGN;

Document Type: Article

Vernonia galamensis is an annual herb whose seed oil contains high levels of an **epoxy** fatty acid, vernolic (cis-12,13- **epoxy** cis-9- **octadecenoic**) acid. The seed also contains lipase activity in the dormant state. A lipase was purified from the seed and its substrate specificity studied in isoctane. The lipase shows pronounced selectivity for the native triacylglycerol, trivernolin. The rate of hydrolysis of triolein, the corresponding non **epoxy** triacylglycerol, is only 3% of that of trivernolin. In the acidolysis of tricaprylin using a mixture of fatty acids, the *Vernonia* lipase also showed selectivity for vernolic acid. Michaelis-Menten kinetics of the hydrolysis of triacylglycerols revealed that the observed high selectivity of the *Vernonia* lipase for trivernolin was mainly due to a higher Vmax for trivernolin. The Vmax value for the hydrolysis of trivernolin was 5 times higher than that for triolein. This novel substrate specificity is an adaptation by the seed lipase to the triacylglycerols of the seed oil that contain up to 80% vernolic acid.

Section Headings: F600 **PLANT** PHYSIOLOGY AND BIOCHEMISTRY

3/5/18 (Item 5 from file: 10)

DIALOG(R)File 10:AGRICOLA

(c) format only 2005 The Dialog Corporation. All rts. reserv.

3558937 20551335 Holding Library: AGL

Specificity of *Carica papaya* latex as biocatalyst in the esterification of fatty acids with 1-butanol

Mukherjee, K.D. Kiewitt, I.

Federal Center for Cereal, Potato and Lipid Research, Munster, Germany.

Washington, D.C. : American Chemical Society.

Journal of agricultural and food chemistry. July 1996. v. 44 (7) p.

1948-1952.

ISSN: 0021-8561 CODEN: JAFCAU

DNAL CALL NO: 381 J8223

Language: English

Includes references

Place of Publication: District of Columbia

Subfile: IND; OTHER US (NOT EXP STN, EXT, USDA; SINCE 12/76);

Document Type: Article

Papaya (*Carica papaya*) latex, reportedly known to have good lipolytic activity, has been evaluated as biocatalyst in the esterification of various fatty acids with 1-butanol in the presence of myristic acid as the reference standard. *C. papaya* latex strongly discriminates against fatty acids having a cis-4 unsaturation, e.g. all-cis-4,7,10,13,16,19-docosahexaenoic acid, cis-6 unsaturation, e.g. petroselinic (cis-6- **octadecenoic**), gamma-linolenic (all-cis-6,9,12-octadecatrienoic), and stearidonic (all-cis-6,9,12,15-octadecatetraenoic) acids, and cis-8 unsaturation, e.g. dihomogamma-linolenic (all-cis-8,11,14-eicosatrienoic) acid. Fatty acids having cis-5 unsaturation, e.g. all-cis-5,8,11,14,17-eicosapentaenoic acid, and those having a cis-9 unsaturation, e.g. oleic (cis-9- **octadecenoic**) and alpha-linolenic (all-cis-9,12,15-octadecatrienoic) acids are very well accepted as substrates. Fatty acids having hydroxy groups, e.g. ricinoleic (12-hydroxy-cis-9- **octadecenoic**) acid and 12-hydroxystearic acid, epoxy groups, e.g. trans-9,10-epoxystearic acid, and cyclopentenyl groups, e.g. hydrocarpic [(11-(2'-cyclopentenyl)undecanoic] acid and chaulmoogric [13-(2'-cyclopentenyl)tridecanoic] acid are also well accepted as substrates. The observed substrate specificities are similar to those reported for lipase preparations from microorganisms, animals, and plants.

DESCRIPTORS: carica papaya; latex; triacylglycerol lipase; esterification; butanol; substrates; fatty acids;

Identifiers: enzymatic esterification; substrate specificity; fatty acid specificity

Section Headings: F600 **PLANT** PHYSIOLOGY AND BIOCHEMISTRY

3/5/19 (Item 6 from file: 10)

DIALOG(R) File 10:AGRICOLA

(c) format only 2005 The Dialog Corporation. All rts. reserv.

3541587 20537520 Holding Library: AGL

Peroxygenase-catalyzed fatty acid epoxidation in cereal seeds. Sequential oxidation of linoleic acid into 9(S),12(S),13(S)-trihydroxy-10(E)-octadecenoic acid

Hamberg, M. Hamberg, G.

Karolinska Institutet, Stockholm, Sweden.

Rockville, MD : American Society of Plant Physiologists, 1926-

Plant physiology. Mar 1996. v. 110 (3) p. 807-815.

ISSN: 0032-0889 CODEN: PLPHAY

DNAL CALL NO: 450 P692

Language: English

Includes references

Place of Publication: Maryland

Subfile: IND; OTHER US (NOT EXP STN, EXT, USDA; SINCE 12/76);

Document Type: Article

Peroxygenase-catalyzed epoxidation of oleic acid in preparations of cereal seeds was investigated. The 105,000g particle fraction of oat (*Avena sativa*) seed homogenate showed high peroxygenase activity, i.e. 3034 +/- 288 and 2441 +/- 168 nmol (10 min)⁻¹ mg⁻¹ protein in two cultivars, whereas the corresponding fraction obtained from barley (*Hordeum vulgare* and *Hordeum distichum*), rye (*Secale cereale*), and wheat (*Triticum aestivum*)

showed only weak activity, i.e. 13 to 138 nmol (10 min)⁻¹ mg⁻¹ protein. In subcellular fractions of oat seed homogenate, peroxygenase specific activity was highest in the 105,000g particle fraction, whereas lipoxygenase activity was more evenly distributed and highest in the 105,000g supernatant fraction. Incubation of [1-¹⁴C]linoleic acid with the 105,000g supernatant of oat seed homogenate led to the formation of several metabolites, i.e. in order of decreasing abundance, 9(S)hydroxy-10(E)12(Z)-octadecadienoic acid, 9(S),12(S),13(S)-trihydroxy-10(E)- **octadecenoic acid**, cis-9,10- **epoxy** -12(Z)- **octadecenoic acid** [mainly the 9(R),10(S) enantiomer], cis-12,13- **epoxy** -9(Z)- **octadecenoic acid** [mainly the 12(R),13(S) enantiomer], threo-12,13-dihydroxy-9(Z)- **octadecenoic acid**, and 12(R),13(S)- **epoxy** -9(S)-hydroxy-10(E)- **octadecenoic acid**. Incubation of linoleic acid with the 105,000g particle fraction gave a similar, but not identical, pattern of metabolites. Conversion of linoleic acid into 9(S),12(S),13(S)-trihydroxy-10(E)- **octadecenoic acid**, a naturally occurring oxylipin with antifungal properties, took place by a pathway involving sequential catalysis by lipoxygenase, peroxygenase, and epoxide hydrolase.

DESCRIPTORS: avena sativa; hordeum vulgare; secale cereale; triticum aestivum; seeds; oxygenases; lipoxygenase; epoxide hydrolase; catalytic activity; quantitative analysis; fatty acids; epoxides; oxidation; linoleic acid; stearic acid; biochemical pathways; metabolites; cultivars;

Section Headings: F600 **PLANT** PHYSIOLOGY AND BIOCHEMISTRY; F200 **PLANT** BREEDING

3/5/20 (Item 7 from file: 10)

DIALOG(R)File 10:AGRICOLA

(c) format only 2005 The Dialog Corporation. All rts. reserv.

3366390 20392011 Holding Library: AGL

Regio- and stereoselectivity of cytochrome P-450 and peroxygenase-dependent formation of cis-12,13- epoxy -9(Z)- octadecenoic acid (vernolic acid) in Euphorbia lagascae

Blee, E. Stahl, U.; Schuber, F.; Stymne, S.

Orlando, Fla. : Academic Press.

Biochemical and biophysical research communications. Dec 15, 1993. v. 197 (2) p. 778-784.

ISSN: 0006-291X CODEN: BBRC99

DNAL CALL NO: 442.8 B5236

Language: English

Includes references

Place of Publication: Florida

Subfile: IND; OTHER US (NOT EXP STN, EXT, USDA; SINCE 12/76);

Document Type: Article

Two oxygenases associated with microsomes prepared from Euphorbia lagascae developing seeds were found to convert linoleic acid into cis-12,13- **epoxy** -9(Z)- octadecenoic acid (vernolate): a cytochrome P-450 and a peroxygenase. The cytochrome P-450 dependent epoxidation is characterized by a remarkable regio- and enantioselectivity, i.e. only the 12(S), 13(R)-enantiomer is formed in the endosperm. In germinating seeds, peroxygenase was active but no cytochrome P-450 epoxidase could be detected. Moreover, because of the very high enantioselectivity of the fatty acid epoxide hydrolase, which is also found in these tissues and which preferentially hydrates the 12(R), 13(S)-epoxide enantiomer, 12(S),13(R)- **epoxy** -9(Z)- **octadecenoic acid** is the only isomer which can accumulate in E. lagascae.

DESCRIPTORS: euphorbia; seeds; microsomes; cytochrome p-450; oxygenases;

oleic acid; linoleic acid; oxidation; epoxide hydrolase; enzyme activity; stereochemistry; seed germination;

Identifiers: euphorbia lagascae; **epoxy** fatty acids; epoxidation

Section Headings: F600 **PLANT** PHYSIOLOGY AND BIOCHEMISTRY

3/5/21 (Item 8 from file: 10)

DIALOG(R) File 10:AGRICOLA

(c) format only 2005 The Dialog Corporation. All rts. reserv.

3269813 93018157 Holding Library: AGL

On the specificity of a fatty acid epoxygenase in broad bean (Vicia faba L.)

Hamberg, M. Fahlstadius, P.

Karolinska Institutet, Stockholm, Sweden

Rockville, Md. : American Society of Plant Physiologists.

Plant physiology. July 1992. v. 99 (3) p. 987-995.

ISSN: 0032-0889 CODEN: PLPHA

DNAL CALL NO: 450 P692

Language: English

Includes references.

Subfile: OTHER US (NOT EXP STN, EXT, USDA; SINCE 12/76);

Document Type: Article

Seeds of broad bean (*Vicia faba* L.) contain a hydroperoxide-dependent fatty acid epoxygenase. Hydrogen peroxide served as an effective oxygen donor in the epoxygenase reaction. Fifteen unsaturated fatty acids were incubated with *V. faba* epoxygenase in the presence of hydrogen peroxide and the **epoxy** fatty acids produced were identified. Examination of the substrate specificity of the epoxygenase using a series of monounsaturated fatty acids demonstrated that (Z)-fatty acids were rapidly epoxidized into the corresponding **cis-epoxy** acids, whereas (E)-fatty acids were converted into their **trans-epoxides** at a very slow rate. In the series of (Z)-monoenoic acids, the double bond position as well as the chain length influenced the rate of epoxidation. The best substrates were found to be palmitoleic, oleic, and myristoleic acids. Steric analysis showed that most of the **epoxy** acids produced from monounsaturated fatty acids as well as from linoleic and alpha-linolenic acids had mainly the (R),(S) configuration. Exceptions were C(18) acids having the epoxide group located at C-12/13, in which cases the (S),(R) enantiomers dominated. 13(S)-Hydroxy-9(Z),11(E)-octadecadienoic acid incubated with epoxygenase afforded the **epoxy** alcohol 9(S),10(R)-**epoxy** -13(S)-hydroxy-11(E)-**octadecenoic** acid as the major product. Smaller amounts of the diastereomeric **epoxy** alcohol 9(R),10(S)-**epoxy** -13(S)-hydroxy-11(E)-**octadecenoic** acid as well as the alpha,beta-**epoxy** alcohol 11(R),12(R)-**epoxy** -13(S)-hydroxy-9(Z)-**octadecenoic** acid were also obtained. The soluble fraction of homogenate of *V. faba* seeds contained an epoxide hydrolase activity that catalyzed the conversion of **cis-9,10-epoxyoctadecanoic** acid into **threo-9,10-dihydroxyoctadecanoic** acid.

DESCRIPTORS: vicia faba; seeds; fatty acids; enzymes; enzyme activity; substrates; stereochemistry;

Section Headings: F600 **PLANT** PHYSIOLOGY AND BIOCHEMISTRY

3/5/22 (Item 9 from file: 10)

DIALOG(R) File 10:AGRICOLA

(c) format only 2005 The Dialog Corporation. All rts. reserv.

3060981 91010622 Holding Library: AGL

Hydroperoxide-dependent epoxidation of unsaturated fatty acids in the broad bean (*Vicia faba* L.)

Hamberg, M. Hamberg, G.

Karolinska Institutet, Stockholm, Sweden

Duluth, Minn. : Academic Press.

Archives of biochemistry and biophysics. Dec 1990. v. 283 (2) p. 409-416.

ISSN: 0003-9861 CODEN: ABBIA

DNAL CALL NO: 381 AR2

Language: English

Includes references.

Subfile: OTHER US (NOT EXP STN, EXT, USDA; SINCE 12/76);

Document Type: Article

Incubation of linoleic acid with the 105,000g particle fraction of the homogenate of the broad bean (*Vicia faba* L.) led to the formation of the following products: 13(S)-hydroxy-9(Z),11(E)-octadecadienoic acid, 9,10-**epoxy**-12(Z)-**octadecenoic** acid (9(R),10(S)/9(S)/10(R), 80/20), 12,13-**epoxy**-9(Z)-**octadecenoic** acid (12(S),13(R)/12(R)/13(S), 64/36), and 9,10-**epoxy**-13(S)-hydroxy-11(E)-**octadecenoic** acid (9(S),10(R)/9(R),10(S), 91/9). Oleic acid incubated with the enzyme preparation in the presence of 13(S)-hydroperoxy-9(Z),11(E)-octadecadienoic acid or cumene hydroperoxide was converted into 9,10-epoxyoctadecanoic acid (9(R),10(S)/9(S),10(R), 79/21). Two enzyme activities were involved in the formation of the products, an omega 6-lipoxygenase and a hydroperoxide-dependent epoxygenase. The lipoxygenase, but not the epoxygenase, was inhibited by low concentrations of 5,8,11,14-eicosatetraenoic acid and nordihydroguaiaretic acid. In contrast, the epoxygenase, but not the lipoxygenase, was readily inactivated in the presence of 13(S)-hydroperoxy-9(Z),11(E)-octadecadienoic acid. Studies with 18O2-labeled 13(S)-hydroperoxy-9(Z),11(E)-octadecadienoic acid showed that the epoxide oxygens of 9,10-epoxyoctadecanoic acid and of 9,10-**epoxy**-13(S)-hydroxy-11(E)-**octadecenoic** acid were derived from hydroperoxide and not from molecular oxygen.

DESCRIPTORS: *vicia faba*; lipoxygenase; linoleic acid; oxidation; hydrogen peroxide;

Identifiers: epoxygenase; enzyme mechanisms

Section Headings: F600 **PLANT** PHYSIOLOGY AND BIOCHEMISTRY

?

FILE 'BIOSIS' ENTERED AT 11:02:59 ON 12 JUL 2005
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FILE 'AGRICOLA' ENTERED AT 11:02:59 ON 12 JUL 2005

=> s epoxygenase

L1 533 EPOXYGENASE

=> s l1 and plant

L2 13 L1 AND PLANT

=> d 1

L2 ANSWER 1 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2004:347371 BIOSIS
DN PREV200400349260
TI Properties of two multifunctional **plant** fatty acid
acetylenase/desaturase enzymes.
AU Carlsson, Anders S. [Reprint Author]; Thomaeus, Stefan; Hamberg, Mats;
Stymme, Sten
CS Dept Crop Sci, Swedish Univ Agr Sci, POB 44, S-23053, Alnarp, Sweden
anders.carlsson@vv.slu.se
SO European Journal of Biochemistry, (July 2004) Vol. 271, No. 14, pp.
2991-2997. print.
ISSN: 0014-2956 (ISSN print).
DT Article
LA English
ED Entered STN: 18 Aug 2004
Last Updated on STN: 18 Aug 2004

=> d 2

L2 ANSWER 2 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2003:110604 BIOSIS
DN PREV200300110604
TI Molecular analysis of a bifunctional fatty acid conjugase/desaturase from
tung. Implications for the evolution of **plant** fatty acid
diversity.
AU Dyer, John M. [Reprint Author]; Chapital, Dorselyn C.; Kuan, Jui-Chang W.;
Mullen, Robert T.; Turner, Charlotta; McKeon, Thomas A.; Pepperman, Armand
B.
CS Southern Regional Research Center, United States Department of
Agriculture-Agricultural Research Service, 1100 Robert E. Lee Boulevard,
New Orleans, LA, 70124, USA
jdyer@nola.srrc.usda.gov
SO Plant Physiology (Rockville), (December 2002) Vol. 130, No. 4, pp.
2027-2038. print.
ISSN: 0032-0889 (ISSN print).
DT Article
LA English
ED Entered STN: 26 Feb 2003
Last Updated on STN: 26 Feb 2003

=> rd L2

RD IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> d 3-13

L2 ANSWER 3 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2003:41259 BIOSIS
DN PREV200300041259
TI Expression of epoxy fatty acid synthesis genes.
AU Hatánaka, Tomoko [Reprint Author]; Hildebrand, David F. [Reprint Author]
CS Department of Agronomy, University of Kentucky, Lexington, KY, USA
thata2@pop.uky.edu
SO Plant Biology (Rockville), (2001) Vol. 2001, pp. 108-109. print.
Meeting Info.: Joint Annual Meetings of the American Society of Plant
Biologists and the Canadian Society of Plant Physiologists. Providence,
Rhode Island, USA. July 21-25, 2001. American Society of Plant Biologists;
Canadian Society of Plant Physiologists.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 15 Jan 2003
Last Updated on STN: 15 Jan 2003

L2 ANSWER 4 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2002:113981 BIOSIS
DN PREV200200113981
TI **Plant** fatty acid **epoxygenase** genes and uses therefor.
AU Green, Allan [Inventor, Reprint author]; Singh, Surinder [Inventor];
Lenman, Marit [Inventor]; Stymne, Sten [Inventor]
CS Barton, Australia
ASSIGNEE: BASF Plant Science GmbH, Ludwigshafen, Germany; Commonwealth
Scientific and Industrial Research Organisation, Campbell, Australia
PI US 6329518 20011211
SO Official Gazette of the United States Patent and Trademark Office Patents,
(Dec. 11, 2001) Vol. 1253, No. 2. [http://www.uspto.gov/web/menu/patdata.ht](http://www.uspto.gov/web/menu/patdata.html)
ml. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 30 Jan 2002
Last Updated on STN: 26 Feb 2002

L2 ANSWER 5 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2001:546278 BIOSIS
DN PREV200100546278
TI Distribution of fatty acids in polar and neutral lipids during seed
development in Arabidopsis thaliana genetically engineered to produce
acetylenic, epoxy and hydroxy fatty acids.
AU Thomaeus, Stefan [Reprint author]; Carlsson, Anders S.; Stymne, Sten
CS Department of Crop Science, Swedish University of Agricultural Science,
Vaxtskyddsvagen 1, 23053, Alnarp, Sweden
stefan.thomaeus@vv.slu.se
SO Plant Science (Shannon), (October, 2001) Vol. 161, No. 5, pp. 997-1003.
print.
CODEN: PLSCE4. ISSN: 0168-9452.
DT Article
LA English
ED Entered STN: 21 Nov 2001
Last Updated on STN: 25 Feb 2002

L2 ANSWER 6 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2001:262542 BIOSIS
DN PREV200100262542
TI Paclitaxel metabolism by clinically relevant cell lines and its effects on
cell metabolism in vitro.
AU Roberts, Susan Celia [Reprint author]; Roberts, Louis Anthony [Reprint
author]; McAuliffe, Gretchen [Reprint author]

CS University of Massachusetts, 159 Goessmann Laboratory, Amherst, MA, 01003, USA

SO FASEB Journal, (March 8, 2001) Vol. 15, No. 5, pp. A919. print.
Meeting Info.: Annual Meeting of the Federation of American Societies for Experimental Biology on Experimental Biology 2001. Orlando, Florida, USA. March 31-April 04, 2001.
CODEN: FAJOEC. ISSN: 0892-6638.

DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LA English

ED Entered STN: 30 May 2001
Last Updated on STN: 19 Feb 2002

L2 ANSWER 7 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2001:198654 BIOSIS
DN PREV200100198654
TI Inhibition of polyunsaturated fatty acid accumulation in plants expressing a fatty acid **epoxygenase**.
AU Singh, S. [Reprint author]; Thomaesus, S.; Lee, M.; Green, A.; Stymne, S.
CS CSIRO Plant Industry, Canberra, ACT, Australia
surinder.singh@pi.csiro.au

SO Biochemical Society Transactions, (December, 2000) Vol. 28, No. 6, pp. 940-942. print.
CODEN: BCSTB5. ISSN: 0300-5127.

DT Article

LA English

ED Entered STN: 25 Apr 2001
Last Updated on STN: 18 Feb 2002

L2 ANSWER 8 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1996:529818 BIOSIS
DN PREV199699252174
TI Oxygenation of (3Z)-alkenal to (2E)-4-hydroxy-2-alkenal in soybean seed (Glycine max L.).
AU Takamura, Hitoshi; Gardner, Harold W. [Reprint author]
CS Natl. Cent. Agric. Utilization Res., ARS, USDA, 1815 N. University St., Peoria, IL 61604, USA

SO Biochimica et Biophysica Acta, (1996) Vol. 1303, No. 2, pp. 83-91.
CODEN: BBACAQ. ISSN: 0006-3002.

DT Article

LA English

ED Entered STN: 22 Nov 1996
Last Updated on STN: 23 Jan 1997

L2 ANSWER 9 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1989:277783 BIOSIS
DN PREV198937002780; BR37:2780
TI EPOXIDATION OF CIS AND TRANS DELTA-9-UNSATURATED LAURIC ACIDS BY A CYTOCHROME P-450-DEPENDENT SYSTEM FROM HIGHER **PLANT** MICROSOMES.
AU SALAUN J-P [Reprint author]; WEISSBART D; DURST F; PFLIEGER P; MIOSKOWSKI C
CS LABORATOIRE D'ENZYMOLOGIE CELLULAIRE ET MOLECULAIRE, UNIVERSITE LOUIS PASTEUR-CNRS UA 1182, 28, RUE GOETHE, F-67083 STRASBOURG CEDEX, FRANCE

SO Febs Letters, (1989) Vol. 246, No. 1-2, pp. 120-126.
CODEN: FEBLAL. ISSN: 0014-5793.

DT Article

FS BR

LA ENGLISH

ED Entered STN: 8 Jun 1989
Last Updated on STN: 27 Jul 1989

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(2005) on STN

AN 2003:37713 AGRICOLA
DN IND23329911
TI Molecular analysis of a bifunctional fatty acid conjugase/desaturase from tung. Implications for the evolution of **plant** fatty acid diversity.
AU Dyer, J.M.; Chapital, D.C.; Kuan, J.C.W.; Mullen, R.T.; Turner, C.; McKeon, T.A.; Pepperman, A.B.
AV DNAL (450 P692)
SO Plant physiology, Dec 2002. Vol. 130, No. 4. p. 2027-2038
CODEN: PLPHAY; ISSN: 0032-0889
NTE Includes references
CY Maryland; United States
DT Article; Conference
FS Other US
LA English

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AN 2001:57453 AGRICOLA
DN IND23216261
TI Transgenic expression of a delta12-**epoxygenase** gene in Arabidopsis seeds inhibits accumulation of linoleic acid.
AU Singh, S.; Thomaeus, S.; Lee, M.; Stymne, S.; Green, A.
AV DNAL (450 P693)
SO Planta, Apr 2001. Vol. 212, No. 5/6. p. 872-879
Publisher: Berlin ; New York : Springer-Verlag, 1925-
CODEN: PLANAB; ISSN: 0032-0935

NTE Includes references
CY Germany
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L2 ANSWER 12 OF 13 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
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AN 2001:34038 AGRICOLA
DN IND22437987
TI Inhibition of polyunsaturated fatty acid accumulation in plants expressing a fatty acid **epoxygenase**.
AU Singh, S.; Thomaeus, S.; Lee, M.; Green, A.; Stymne, S.
AV DNAL (QD415.A1B58)
SO Transactions, Dec 2000. Vol. 28, No. pt.6. p. 940-942
Publisher: London : Portland Press.
CODEN: BCSTB5; ISSN: 0300-5127

NTE Paper presented at the "14th International Symposium on **Plant Lipids**," Cardiff University, Wales, U.K.
Includes references
CY England; United Kingdom
DT Article
FS Non-U.S. Imprint other than FAO
LA English

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AN 97:17876 AGRICOLA

DN IND20550816
TI Oxygenation of (3Z)-alkenal to (2E)-4-hydroxy-2-alkenal in soybean seed
(Glycine max L.).
AU Takamura, H.; Gardner, H.W.
CS Nara Women's University, Nara, Japan.
SO Biochimica et biophysica acta = International journal of biochemistry and
biophysics, Sept 27, 1996. Vol. 1303, No. 2. p. 83-91
Publisher: Amsterdam : Elsevier Science B.V.
CODEN: BBACAQ; ISSN: 0006-3002
NTE Includes references
CY Netherlands
DT Article
FS Non-U.S. Imprint other than FAO
LA English

=> s epoxy and octadecenoic
L3 110 EPOXY AND OCTADECENOIC

=> s L3 and plant
L4 14 L3 AND PLANT

=> d 1-14

L4 ANSWER 1 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2001:198654 BIOSIS
DN PREV200100198654
TI Inhibition of polyunsaturated fatty acid accumulation in plants expressing
a fatty acid epoxygenase.
AU Singh, S. [Reprint author]; Thomaeus, S.; Lee, M.; Green, A.; Stymne, S.
CS CSIRO Plant Industry, Canberra, ACT, Australia
surinder.singh@pi.csiro.au
SO Biochemical Society Transactions, (December, 2000) Vol. 28, No. 6, pp.
940-942. print.
CODEN: BCSTB5. ISSN: 0300-5127.
DT Article
LA English
ED Entered STN: 25 Apr 2001
Last Updated on STN: 18 Feb 2002

L4 ANSWER 2 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2000:297274 BIOSIS
DN PREV200000297274
TI New cyclopentenone fatty acids formed from linoleic and linolenic acids in
potato.
AU Hamberg, Mats [Reprint author]
CS Department of Medical Biochemistry and Biophysics, Division of
Physiological Chemistry II, Karolinska Institutet, S-171 77, Stockholm,
Sweden
SO Lipids, (April, 2000) Vol. 35, No. 4, pp. 353-363. print.
CODEN: LPDSAP. ISSN: 0024-4201.
DT Article
LA English
ED Entered STN: 12 Jul 2000
Last Updated on STN: 7 Jan 2002

L4 ANSWER 3 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1998:276953 BIOSIS
DN PREV199800276953
TI Identification of non-heme diiron proteins that catalyze triple bond and
epoxy group formation.
AU Lee, Michael; Lenman, Marit; Banas, Antoni; Bafor, Maureen; Singh,
Surinder; Schweizer, Michael; Nilsson, Ralf; Liljenberg, Conny; Dahlqvist,

Anders; Gummeson, Per-Olov; Sjudahl, Staffan; Green, Allan; Stymne, Sten
 [Reprint author]

CS Dep. Plant Breed. Res., Swedish Univ. Agric. Sci., S-268 31 Svalov, Sweden
 SO Science (Washington D C), (May 8, 1998) Vol. 280, No. 5365, pp. 915-918.
 print.
 CODEN: SCIEAS. ISSN: 0036-8075.

DT Article
 LA English
 ED Entered STN: 24 Jun 1998
 Last Updated on STN: 13 Aug 1998

L4 ANSWER 4 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
 AN 1996:225916 BIOSIS
 DN PREV199698782045
 TI Peroxygenase-catalyzed fatty acid epoxidation in cereal seeds: Sequential
 oxidation of linoleic acid into 9(S),12(S),13(S)-trihydroxy-10(E)-
octadecenoic acid.

AU Hamberg, Mats [Reprint author]; Hamberg, Gunvor
 CS Dep. Med. Biochemistry Biophysics, Div. Physiol. Chem. II, Karolinska
 Inst., S-171 77 Stockholm, Sweden
 SO Plant Physiology (Rockville), (1996) Vol. 110, No. 3, pp. 807-815.
 CODEN: PLPHAY. ISSN: 0032-0889.

DT Article
 LA English
 ED Entered STN: 8 May 1996
 Last Updated on STN: 8 May 1996

L4 ANSWER 5 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
 AN 1995:415819 BIOSIS
 DN PREV199598430119
 TI Fatty acid selectivity of a lipase purified from Vernonia galamensis seed.

AU Ncube, Ignatious; Gitlesen, Thomas; Adlercreutz, Patrick [Reprint author];
 Read, John S.; Mattiasson, Bo
 CS Dep. Biotechnol., Chem. Cent., Lund Univ., PO Box 124, S-221 00 Lund,
 Sweden
 SO Biochimica et Biophysica Acta, (1995) Vol. 1257, No. 2, pp. 149-156.
 CODEN: BBACAQ. ISSN: 0006-3002.

DT Article
 LA English
 ED Entered STN: 27 Sep 1995
 Last Updated on STN: 1 Nov 1995

L4 ANSWER 6 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
 AN 1993:303208 BIOSIS
 DN PREV199396021433
 TI High-performance liquid chromatography of the triacylglycerols of Vernonia
 galamensis and Crepis alpina seed oils.

AU Neff, W. E. [Reprint author]; Adlof, R. O.; Konishi, H.; Weisleder, D.
 CS NCAUR, 1815 N. University St., Peoria, IL 61604, USA
 SO Journal of the American Oil Chemists' Society, (1993) Vol. 70, No. 5, pp.
 449-455.
 CODEN: JAOCA7. ISSN: 0003-021X.

DT Article
 LA English
 ED Entered STN: 23 Jun 1993
 Last Updated on STN: 23 Jun 1993

L4 ANSWER 7 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
 AN 1993:169124 BIOSIS
 DN PREV199395090174
 TI Enzymatic synthesis and spectroscopic characterization of
 1,3-divernoloylglycerol from Vernonia galamensis seed oil.

AU Ayorinde, Folahan O. [Reprint author]; Nwaonicha, Chukwuma P.; Parchment,

Voneil N.; Bryant, Kent A.; Hassan, Mahmoud; Clayton, Marcella T.
CS Dep. Chem., Howard Univ., Washington, DC 20059, USA
SO Journal of the American Oil Chemists' Society, (1993) Vol. 70, No. 2, pp.
129-132.
CODEN: JAOCA7. ISSN: 0003-021X.

DT Article
LA English
ED Entered STN: 31 Mar 1993
Last Updated on STN: 1 Apr 1993

L4 ANSWER 8 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1991:294733 BIOSIS
DN PREV199192015748; BA92:15748
TI PREPARATION OF DEUTERIUM-LABELLED METHYL LINOLEATE AND ITS GEOMETRIC
ISOMERS FROM NATURAL SEED OILS.
AU ADLOF R O [Reprint author]; RAKOFF H; EMKEN E A
CS FOOD QUALITY SAFETY RES, NATL CENT AGRIC UTILIZATION RES, AGRIC RES SERV,
US DEP AGRIC, 1815 N UNIVERSITY ST, PEORIA, ILL 61604, USA
SO Journal of the American Oil Chemists' Society, (1991) Vol. 68, No. 5, pp.
303-306.
CODEN: JAOCA7. ISSN: 0003-021X.

DT Article
FS BA
LA ENGLISH
ED Entered STN: 25 Jun 1991
Last Updated on STN: 13 Aug 1991

L4 ANSWER 9 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1991:89969 BIOSIS
DN PREV199191048859; BA91:48859
TI VERNONIA-GALAMENSIS A RICH SOURCE OF **EPOXY** ACID.
AU AYORINDE F O [Reprint author]; BUTLER B D; CLAYTON M T
CS DEP CHEM, HOWARD UNIV, WASHINGTON, DC 20059, USA
SO Journal of the American Oil Chemists' Society, (1990) Vol. 67, No. 11, pp.
844-845.
CODEN: JAOCA7. ISSN: 0003-021X.

DT Article
FS BA
LA ENGLISH
ED Entered STN: 11 Feb 1991
Last Updated on STN: 11 Feb 1991

L4 ANSWER 10 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN
AN 1991:87296 BIOSIS
DN PREV199191046186; BA91:46186
TI MINOR COMPONENTS OF LESQUERELLA-FENDLERI SEED OIL.
AU CHAUDHRY A [Reprint author]; KLEIMAN R; CARLSON K D
CS US DEP AGRIC, AGRIC RES SERV, NORTHERN REGIONAL RES CENT, 1815 NORTH
UNIVERSITY ST, PEORIA, ILL 61604, USA
SO Journal of the American Oil Chemists' Society, (1990) Vol. 67, No. 11, pp.
863-866.
CODEN: JAOCA7. ISSN: 0003-021X.

DT Article
FS BA
LA ENGLISH
ED Entered STN: 11 Feb 1991
Last Updated on STN: 13 Apr 1991

L4 ANSWER 11 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN
AN 1990:430761 BIOSIS
DN PREV199090091562; BA90:91562

TI PILOT **PLANT** EXTRACTION OF OIL FROM VERNONIA-GALAMENSIS SEED.
AU AYORINDE F O [Reprint author]; CARLSON K D; PAVLIK R P; MCVETY J
CS US DEP AGRICULTURE, AGRICULTURE RESEARCH SERVICE, NORTHERN REGIONAL
RESEARCH CENTER, 1815 NORTH UNIVERSITY STREET, PEORIA, ILL 61604, USA
SO Journal of the American Oil Chemists' Society, (1990) Vol. 67, No. 8, pp.
512-518.
CODEN: JAOCA7. ISSN: 0003-021X.

DT Article

FS BA

LA ENGLISH

ED Entered STN: 22 Sep 1990

Last Updated on STN: 23 Sep 1990

L4 ANSWER 12 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN

AN 1990:159619 BIOSIS

DN PREV199089087037; BA89:87037

TI ALLENE OXIDE CYCLASE A NEW ENZYME IN **PLANT** LIPID METABOLISM.

AU HAMBERG M [Reprint author]; FAHLSTADIUS P

CS DEP PHYSIOL CHEM, KAROLINSKA INST, BOX 60400, S-104 01 STOCKHOLM, SWED

SO Archives of Biochemistry and Biophysics, (1990) Vol. 276, No. 2, pp.
518-526.

CODEN: ABBIA4. ISSN: 0003-9861.

DT Article

FS BA

LA ENGLISH

ED Entered STN: 27 Mar 1990

Last Updated on STN: 27 Mar 1990

L4 ANSWER 13 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
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AN 1988:314507 BIOSIS

DN PREV198886031545; BA86:31545

TI DEVELOPMENT OF **PLANT** CUTICLES FINE STRUCTURE AND CUTIN
COMPOSITION OF CLIVIA-MINIATRA REG. LEAVES.

AU RIEDERER M [Reprint author]; SCHONHERR J

CS INST BOTANIK MIKROBIOLOGIE, TECHNISCHE UNIV MUENCHEN, ARCISSTRASSE 21,
D-8000 MUENCHEN 2, W GER

SO Planta (Heidelberg), (1988) Vol. 174, No. 1, pp. 127-138.

CODEN: PLANAB. ISSN: 0032-0935.

DT Article

FS BA

LA ENGLISH

ED Entered STN: 3 Jul 1988

Last Updated on STN: 3 Jul 1988

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AN 2001:57453 AGRICOLA

DN IND23216261

TI Transgenic expression of a delta12-epoxygenase gene in Arabidopsis seeds
inhibits accumulation of linoleic acid.

AU Singh, S.; Thomaeus, S.; Lee, M.; Stymme, S.; Green, A.

AV DNAL (450 P693)

SO Planta, Apr 2001. Vol. 212, No. 5/6. p. 872-879

Publisher: Berlin ; New York : Springer-Verlag, 1925-

CODEN: PLANAB; ISSN: 0032-0935

NTE Includes references

CY Germany

DT Article

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LA English

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